

AFCTN Test Report 93-046

AFCTB-ID 92-093



Technical Publication Transfer

Using:



Cubic Defense Systems' Data



MIL-M-28001A (SGML) MIL-D-28003 (CGM)

Quick Short Test Report

22 December 1992

DISTRIBUTION STATEMENT A

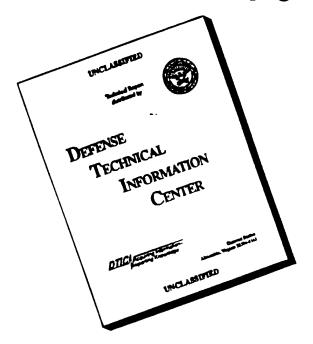
Approved for public release; Distribution Unlimited



Prepared for Electronic Systems Center

DIIC QUALITY INSPECTED 3

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

Technical Publication Transfer Using: Cubic Defense Systems' Data

> MIL-M-28001A (SGML) MIL-D-28003 (CGM)

> **Quick Short Test Report 22 December 1992**

Prepared By
Air Force CALS Test Bed Wright-Patterson AFB, OH 45433

AFCTB Contact

Gary Lammers (513) 427-2295

AFCTN Contact

Mel Lammers (513) 427-2295

DISCLAIMER

This document was prepared as an account of the work sponsored by the Air Force. Neither the United States Government, the Air Force, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, nor represents that its use would not infringe on privately owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the Air Force. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the Air Force, and shall not be used for advertising or product endorsement purposes.

Available to the public from the National Technical Information Service U.S. Department of Commerce 5285 Port Royal Rd. Springfield, VA 22161

This report and those involved in its preparation do not endorse any product, process, or company stated herein. Use of these means by anyone does not imply certification by the Air Force Air Force CALS Test Network (AFCTN).

Contents

1.	Intro	duction1				
	1.1.	Background1				
	1.2.	Purpose2				
2.	Test :	Parameters3				
3.	1840A	Analysis5				
	3.1.	External Packaging5				
	3.2.	Transmission Envelope5				
		3.2.1. Tape Formats5				
		3.2.2. Declaration and Header Fields6				
4.	IGES .	Analysis6				
5.	SGML .	Analysis6				
6.	Raste	r Analysis7				
7.	CGM A	nalysis7				
8.	Conclusions and Recommendations					
9.	Appen	dix A - Tapetool Report Logs10				
	9.1.	Tape Catalog10				
	9.2.	Tape Evaluation Log11				
	9.3.	Tape File Set Validation Log18				
	9.4.	Other Tape Reading Logs20				
10.	Appen	dix B - Detailed SGML Analysis21				
	10.1.	Exoterica Parser21				
	10.2.	Datalogics Parser Log22				

11.	Append	dix C - D	etaile	d CGM Ana	alysis	•••••	• • • • •	• • • •	.24
	11.1.	D001C001	 .	• • • • • • •					.24
		11.1.1.	Parser	Log Meta	aCheck				.24
		11.1.2.	Output	Harvard	Graphic	s			.26
		11.1.3.	Output	IslandD	caw				.27
		11.1.4.	Output	cgm2drav	v/Island	Draw			.28
		11.1.5.	Output	Ventura	Publish	er			.29
	11.2.	D001C002				• • • • • •			.30
		11.2.1.	Parser	Log Meta	Check				.30
		11.2.2.	Output	Harvard	Graphic	s			.32
		11.2.3.	Output	IslandD	caw		• • • • •		.33
		11.2.4.	Output	cgm2drav	v/Island	Draw			.34
		11.2.5.	Output	Ventura	Publish	er	• • • • •	• • • •	.35
	11.3.	D001C003					• • • • •	• • • •	.36
		11.3.1.	Parser	Log Meta	Check	• • • • • •	• • • • •		.36
		11.3.2.	Output	Harvard	Graphic	s	• • • • •		.38
		11.3.3.	Output	IslandD	caw	• • • • • •	• • • •		.39
		11.3.4.	Output	cgm2drav	v/Island	Draw	• • • • •	• • • •	.40
		11.3.5.	Output	Ventura	Publish	er		• • • •	.41
	11.4.	D001C004	: • • • • • ·			• • • • • •	• • • • •	• • • •	.42
		11.4.1.	Parser	Log Meta	Check	• • • • • •	• • • • •	• • • •	.42
		11.4.2.	Output	Harvard	Graphic	s	• • • • •	• • • •	.44
		11.4.3.	Output	IslandD	raw	• • • • • •	• • • • •	• • • •	.45
		11.4.4.	Output	cgm2drav	v/Island	Draw			.46

11.4.5. Output Ventura Publisher.....47

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from any industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving and evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTR) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test reported in this QSTR, was to analyze Cubic Defense Systems' interpretation and use of the CALS standards in transferring technical publication data. Cubic used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

and the second

2. Test Parameters

Test Plan:

AFCTB 92-093

Date of

Evaluation:

22 December 1992

Evaluator:

George Elwood

Air Force CALS Test Bed

DET 2 HQ ESC/ENCP

4027 Colonel Glenn Hwy

Suite 300

Dayton, OH 45431-1672

Data

Originator:

Cathy Kothowala

Cubic Defense Systems 9233 Balboa Avenue San Diego, CA 92128

(619) 277-6780

Data

Description:

Technical Manual Test

1 Document Declaration file

1 Document Type Definitions (DTD)

1 Text file

4 Computer Graphics Metafile (CGM) files

1 Page Discription Language (PDL) file

Data

Source System:

Text/Standard Generalized Markup Language (SGML)

HARDWARE

Unknown

SOPTWARE

Word Perfect v5.1 Avalanche FastTAG CGM

HARDWARE

Unknown

SOFTWARE

MASS11 Draw

Micrografx Designer v3.1 Inset Systems HiJaak v2.1

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN Tapetool v1.2.8 UNIX XSoft CAPS/CALS v40.4

MIL-M-28001 (SGML)

Cheetah Gold 486

Datalogics ParserStation v3.36 Exoterica XGMLNormalizer v1.2e3.2

MIL-D-28003 (CGM)

SUN SparcStation 2

ArborText cgm2draw

Island Graphics IslandDraw v3.0

Cheetah Gold 486

Advance Technology Center

(ATC) MetaVIEW R 1.12

ATC MetaCheck R 2.05

Software Publishing Corporation

(SPC) Harvard Graphics v3.05

Corel Ventura Publisher

Standards
Tested:

MIL-STD-1840A MIL-M-28001A MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.

The tape was not enclosed in a barrier bag or barrier sheet material as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Some 9-track tape units require this BPI to be set manually. Enclosed in the box was a packing list showing all files recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTB Tapetool v1.2.8 utility. One error was encountered while evaluating the contents of the tape labels. The reported error was carriage control characters in the Text file. This is typical of Text files created on PC systems. These characters may cause problems on some systems.

*** WARNING - This variable length record type file contained carriage control characters. Carriage control characters are used as record terminators and are interpreted differently among dissimilar systems.

The tape was also read using XSoft CAPS read1840A without reported error.

3.2.2 Declaration and Header Fields

No errors were found in the Document Declaration file or data file headers.

4. IGES Analysis

No Initial Graphics Exchange Specification (IGES) files were included on this tape.

5. SGML Analysis

The Text files from this document were tested using the Exoterica XGMLNormalizer parser. The initial pass through the DTD generated several errors which had to be corrected. The standard text entities were not available in the AFCTB system and had to be commented out. These were located at the start of the DTD.

```
<!-- STANDARD TEXT ENTITIES -->
```

The Latin 2 ISO entity set also had to be commented out. After these actions were completed, the DTD parsed without a reported error.

The Text file was then parsed using the corrected DTD. This action generated 10 errors due to missing graphics references.

The DTD was then parsed using Datalogics' ParserStation. The initial pass through the original DTD generated an error with the above noted entities. These were commented out and another pass was made. This generated errors at the end of

<!--

<!ENTITY % efdate PUBLIC "-//USA-DOD//ENTITIES EFFECTIVE DATE NOTICE 900102//EN"
"entities/efdate.ent">

the DTD with the entrytbl and ftnote references. The error was tracked to the secur reference. This was corrected and the DTD parsed without reported error.

The Text file was then parsed using the corrected DTD. This action generated 10 errors relating to the missing graphics references.

The DTD and Text file do not meet the CALS MIL-M-28001A specification.

6. Raster Analysis

No Raster files were included on this tape.

7. CGM Analysis

The tape contained four CGM files. These files were evaluated using ATC's *MetaCheck* with CALS options. All four files were reported as not meeting the CALS specification due to the lack of the required CALS statement in the CGM header.

All files were viewed using ATC's MetaVIEW. This utility did not display any files due to background colors. Some activity was noted on the screen during the display. All files were reported with an error by this utility.

The files were imported directly into Corel's *Ventura Publisher*. No errors were reported. The files appeared to be complete and correct.

The files were imported into SPC's Harvard Graphics v3.05. This action generated an error relating to not importing an object due to size. All files displayed some level of shading problems. Some text in file C001 was displayed at an angle. The text size in C003 caused it to fall outside the text block area. File C004 displayed major problems because of the transparency of the text block colors.

The files were imported directly into Island Graphics' IslandDraw without a reported error. File C003 displayed the large text slightly outside the text block. Some text in

file C001 was displayed at an angle like SPC's Harvard Graphics.

The files were converted to Draw format using ArborText's cgm2draw utility. No errors were reported during this procedure. When displayed and printed, file C001 showed that part of the file was displayed down so it over laid another part of the file. File C002 displayed a similar problem. The large text in file C003 was outside the text block. File C004 had a random line displayed from the aircraft to the lower left corner of the screen.

The CGM files do not meet the CALS MIL-D-28003 specification.

8. Conclusions and Recommendations

In summary, the tape from Cubic Defense Systems was basically correct. The tape could be read properly using the AFCTN Tapetool and XSoft CAPS read1840A software without any reported errors. The physical Structure of the tape meets the CALS MIL-STD-1840A requirements.

The DTD and Text file were parsed using two different parsers. Both parsers required some of the DTD be commented out because of missing entities. The Text file was reported in error due to missing graphics entities. The SGML file does not meet the CALS MIL-M-28001A specification.

All four CGM files were missing the CALS statement. The files were handled with varying degrees of success using tools available in the AFCTB. The CGM files do not meet the CALS MIL-D-28003 specification.

The tape does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information MIL-R-28003 (1988) - Digital Representation For Communication Of Illustration Data; CGM Application Profile ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Dec 22 13:46:09 1992

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set113

Page: 1

| File Name | File Type | Record
Format/
Length | Block
Length/Total | Selected/
Extracted |
|-----------|----------------------|-----------------------------|-----------------------|------------------------|
| D001 | Document Declaration | D/00260 | 02048/000001 | Extracted |
| D001C001 | CGM | F/00080 | 00800/000059 | Extracted |
| D001C002 | CGM | F/00080 | 00800/000052 | Extracted |
| D001C003 | CGM | F/00080 | 00800/000007 | Extracted |
| D001C004 | CGM | F/00080 | 00800/000061 | Extracted |
| D001G005 | DTD | D/00260 | 02048/000018 | Extracted |
| D001P006 | PDL | D/00260 | 02048/000179 | Extracted |
| D001T007 | Text | D/00260 | 02048/000034 | Extracted |

Catalog Process terminated normally.

9.2 Tape Evaluation Log

Air Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8 Standards referenced:

ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Dec 22 13:45:36 1992

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1CALS01

Label Identifier: VOL1
Volume Identifier: CALS01
Volume Accessibility:
Owner Identifier:

Label Standard Version: 4

HDR1D001

CALS0100010001000000 92354 00000 000000

Label Identifier: HDR1 File Identifier: D001

File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0000
Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000000

Implementation Identifier:

HDR2D0204800260

00

Label Identifier: HDR2 Recording Format: D Block Length: 02048 Record Length: 00260 Offset Length: 00 ******* Tape Mark *********

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 1.

******* Tape Mark **********

EOF1D001

CALS0100010001000000 92354 00000 000001

Label Identifier: EOF1
File Identifier: D001

File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0000
Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000001

Implementation Identifier:

EOF2D0204800260

00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

******* Tape Mark *********

HDR1D001C001

CALS0100010002000000 92354 00000 000000

Label Identifier: HDR1
File Identifier: D001C001
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0002
Generation Number: 0000

Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000000

Implementation Identifier: HDR2F0080000080 00 Label Identifier: HDR2 Recording Format: F Block Length: 00800 Record Length: 00080 Offset Length: 00 ******* Tape Mark ********** Actual Block Size Found = 800 Bytes. Number of data blocks read = 59. ******** Tape Mark ********* EOF1D001C001 CALS0100010002000000 92354 00000 000059 Label Identifier: EOF1 File Identifier: D001C001 File Set Identifier: CALS01 File Section Number: 0001 File Sequence Number: 0002 Generation Number: 0000 Generation Version Number: 00 Creation Date: 92354 Expiration Date: 00000 File Accessibility: Block Count: 000059 Implementation Identifier: BOF2F0080000080 00 Label Identifier: EOF2 Recording Format: F Block Length: 00800 Record Length: 00080 Offset Length: 00 ******** Tape Mark ********* <<<< PART OF LOG FILE REMOVED HERE >>>>

******* Tape Mark *********

HDR1D001G005

CALS0100010006000000 92354 00000 000000

Label Identifier: HDR1 File Identifier: D001G005 File Set Identifier: CALS01 File Section Number: 0001 File Sequence Number: 0006 Generation Number: 0000 Generation Version Number: 00

Creation Date: 92354 Expiration Date: 00000 File Accessibility:

Block Count: 000000

Implementation Identifier:

HDR2D0204800260

Label Identifier: HDR2 Recording Format: D Block Length: 02048 Record Length: 00260 Offset Length: 00

******* Tape Mark *********

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 18.

******* Tape Mark *********

EOF1D001G005

CALS0100010006000000 92354 00000 000018

Label Identifier: EOF1 File Identifier: D001G005 File Set Identifier: CALS01 File Section Number: 0001 File Sequence Number: 0006 Generation Number: 0000

Generation Version Number: 00

Creation Date: 92354 Expiration Date: 00000 File Accessibility: Block Count: 000018

Implementation Identifier:

EOF2D0204800260

00

00

Label Identifier: EOF2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

******** Tape Mark *********

HDR1D001P006

CALS0100010007000000 92354 00000 000000

Label Identifier: HDR1
File Identifier: D001P006
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0007
Generation Number: 0000

Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000000

Implementation Identifier:

HDR2D0204800260

00

Label Identifier: HDR2 Recording Format: D Block Length: 02048 Record Length: 00260 Offset Length: 00

******* Tape Mark *********

Actual Block Size Found = 2048 Bytes.

*** WARNING - This variable length record type file contained carriage control characters. Carriage control characters are used as record terminators and are interpreted differently among dissimilar systems.

Number of data blocks read = 179.

******* Tape Mark *********

EOF1D001P006

CALS0100010007000000 92354 00000 000179

Label Identifier: EOF1
File Identifier: D001P006
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0007
Generation Number: 0000
Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000179

Implementation Identifier:

EOF2D0204800260

Label Identifier: EOF2 Recording Format: D Block Length: 02048 Record Length: 00260 Offset Length: 00

******** Tape Mark *********

HDR1D001T007

CALS0100010008000000 92354 00000 000000

Label Identifier: HDR1
File Identifier: D001T007
File Set Identifier: CALS01
File Section Number: 0001
File Sequence Number: 0008
Generation Number: 0000
Generation Version Number: 00

Creation Date: 92354
Expiration Date: 00000
File Accessibility:
Block Count: 000000

Implementation Identifier:

HDR2D0204800260

Label Identifier: HDR2
Recording Format: D
Block Length: 02048
Record Length: 00260
Offset Length: 00

********* Tape Mark *********

16

00

00

and 0 note(s).

Actual Block Size Found = 2048 Bytes. Number of data blocks read = 34. ******* Tape Mark ********* EOF1D001T007 CALS0100010008000000 92354 00000 000034 Label Identifier: EOF1 File Identifier: D001T007 File Set Identifier: CALS01 File Section Number: 0001 File Sequence Number: 0008 Generation Number: 0000 Generation Version Number: 00 Creation Date: 92354 Expiration Date: 00000 File Accessibility: Block Count: 000034 Implementation Identifier: EOF2D0204800260 00 Label Identifier: EOF2 Recording Format: D Block Length: 02048 Record Length: 00260 Offset Length: 00 ******* Tape Mark ********** ******* Tape Mark ********* ########## End of Volume CALS01 ############# ########## End Of Tape File Set ############### Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 1 warning(s),

9.3 Tape File Set Validation Log

Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8 Standa referenced: MIL-STD-1840A (1987) - Automated Interchange of Technical Information MIL-R-28002 (1989) - Raster Graphics Representation In Binary Format, Requirements Tue Dec 22 13:46:10 1992 MIL-STD-1840A File Set Evaluation Log File Set: Set113 Found D001 Extracting Document Declaration Header Records...

srcsys: cubic defense systems inc 9333 Balboa Ave San Diego CA 92123 CAGE 94987

srcdocid: TO-1 srcrelid: NONE chglvl: ORIGINAL dteisu: 19921218 dstsys: OO-ALC/PKDT

dstdocid: TO-1 dstrelid: NONE dtetrn: 19921219 dlvacc: NONE

filcnt: C4,G1,P1,T1 ttlcls: UNCLASSIFIED doccls: UNCLASSIFIED

doctyp: Technical Publication

docttl: NONE

Found file: D001C001

Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: TO-1
dstdocid: TO-1
txtfilid: W
figid: NONE

srcgph: HIJACK V2.1
doccls: UNCLASSIFIED

notes: NONE

Saving CGM Header File: D001C001_HDR Saving CGM Data File: D001C001 CGM

<<<< PART OF LOG REMOVED HERE >>>>

Found file: D001G005

Extracting DTD Header Records... Evaluating DTD Header Records... srcdocid: TO-1
dstdocid: TO-1
notes: NONE

Saving DTD Header File: D001G005_HDR Saving DTD Data File: D001G005_DTD

Found file: D001P006

Extracting PDL Header Records...
Evaluating PDL Header Records...

srcdocid: TO-1
dstdocid: TO-1
txtfilid: W

doccls: UNCLASSIFIED

notes: NONE

Saving PDL Header File: D001P006_HDR Saving PDL Data File: D001P006_PDL

Found file: D001T007

Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: TO-1
dstdocid: TO-1
txtfilid: W

doccls: UNCLASSIFIED

notes: NONE

Saving Text Header File: D001T007_HDR Saving Text Data File: D001T007_TXT

Evaluating numbering scheme...

No errors were encountered during numbering scheme evaluation. Numbering scheme evaluation complete.

Checking file count ...

No errors were encountered during file count verification. File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

9.4 Other Tape Reading Logs

No reported errors using XSoft CAPS read1840A.

10. Appendix B - Detailed SGML Analysis

10.1 Exoterica Parser

C:\XGML\XGMLNORM.EXE --

Error on line 125 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig1"..

C:\XGML\XGMLNORM.EXE --

Error on line 131 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig2"..

C:\XGML\XGMLNORM.EXE --

Error on line 137 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig3"..

C:\XGML\XGMLNORM.EXE --

Error on line 861 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig4"..

C:\XGML\XGMLNORM.EXE --

Error on line 866 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig5"..

C:\XGML\XGMLNORM.EXE --

Error on line 872 in file \9293\d001t007:

Attribute given an undeclared entity value, and there is no DEFAULT entity.

For start tag 'GRAPHIC': For REQUIRED ENTITY attribute 'BOARDNO'="fig6"..

```
C:\XGML\XGMLNORM.EXE --
crror on line 877 in file \9293\d001t007:
Attribute given an undeclared entity value, and there is no DEFAULT
entity.
For start tag 'GRAPHIC': For REQUIRED ENTITY attribute
'BOARDNO'="fig7"..
C:\XGML\XGMLNORM.EXE --
Error on line 1393 in file \9293\d001t007:
Attribute given an undeclared entity value, and there is no DEFAULT
entity.
For start tag 'GRAPHIC': For REQUIRED ENTITY attribute
'BOARDNO'="fig8"..
C:\XGML\XGMLNORM.EXE --
Error on line 1559 in file \9293\d001t007:
Attribute given an undeclared entity value, and there is no DEFAULT
For start tag 'GRAPHIC': For REQUIRED ENTITY attribute
'BOARDNO'="fig9"..
```

10.2 DataLogics Parser Log

```
*** SGML Instance Parser Log File ***
Source Document File: '9293.txt'.
Job File:
                       '9293.jbf'.
DTD File:
SGML Declaration File: ''.
Reading File '9293.jbf', File Type 'JOB FILE'.
     Concrete Syntax Settings In Effect For This Parse:
         NAMECASE GENERAL: YES.
        NAMECASE ENTITY: NO.
        NAMELEN:
         SHORTTAG:
                          YES.
Closed '9293.jbf', File Type 'JOB FILE'.
Reading File '9293.txt', File Type 'DIRECT INPUT FILE'.
   --> Scanned Up To Line 100 In 9293.txt.
IPA0054: Unknown Attribute In General Entity Name 'fig1'.
   Error On Line 125.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.FIGURE'.
IPA0054: Unknown Attribute In General Entity Name 'fig2'.
   Error On Line 131.
```

```
State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.FIGURE'.
IPA0054: Unknown Attribute In General Entity Name 'fig3'.
    Error On Line 137.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.FIGURE'.
   --> Scanned Up To Line 200 In 9293.txt.
   --> Scanned Up To Line 300 In 9293.txt.
   --> Scanned Up To Line 400 In 9293.txt.
   --> Scanned Up To Line 500 In 9293.txt.
   --> Scanned Up To Line 600 In 9293.txt.
   --> Scanned Up To Line 700 In 9293.txt.
   --> Scanned Up To Line 800 In 9293.txt.
IPA0054: Unknown Attribute In General Entity Name 'fig4'.
    Error On Line 861.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.STEP1.FIGURE'.
IPA0054: Unknown Attribute In General Entity Name 'fig5'.
    Error On Line 866.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.STEP1.FIGURE'.
IPA0054: Unknown Attribute In General Entity Name 'fig6'.
    Error On Line 872.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.STEP1.FIGURE'.
IPA0054: Unknown Attribute In General Entity Name 'fig7'.
    Error On Line 877.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.SUBPARA1.STEP1.FIGURE'.
   --> Scanned Up To Line 900 In 9293.txt.
   --> Scanned Up To Line 1000 In 9293.txt.
   --> Scanned Up To Line 1100 In 9293.txt.
   --> Scanned Up To Line 1200 In 9293.txt.
   --> Scanned Up To Line 1300 In 9293.txt.
IPA0054: Unknown Attribute In General Entity Name 'fig8'.
    Error On Line 1393.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.STEP1.FIGURE'.
   --> Scanned Up To Line 1400 In 9293.txt.
   --> Scanned Up To Line 1500 In 9293.txt.
IPA0054: Unknown Attribute In General Entity Name 'fig9'.
    Error On Line 1559.
    State: 'DOC.BODY.CHAPTER.SECTION.PARAO.FIGURE'.
Closed '9293.txt', File Type 'DIRECT INPUT FILE'.
Document Parsed With 9 Error(s) And 0 Warning(s).
```

11. Appendix C - Detailed CGM Analysis

11.1 D001C001

11.1.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92 Time: 15:04:19 Metafile Examined : \9293\c001.cgm Pictures Examined : All Elements Examined : All Bytes Examined : All Tracing not selected. ======= CGM Conformance Violation Report ========== Bulletin 20027: Element Class/ID: 4/4 Offset: 612 octets Element No. 59 Warning; a foreground color has been defined and referenced by a primitive, while the background color has not been defined. ====== CALS CGM Profile (MIL-D-28003) Report ========= Error 6501: Element Class/ID: 1/2 Offset: 16 octets Element No. 3 The METAFILE DESCRIPTION string is invalid; it lacks the phrase "MIL-D-28003/BASIC-1" required by the Profile. ========== Conformance Summary Report ============== MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92

Name of CGM under test: \9293\c001.cgm

Encoding : Binary

Pictures Examined : All Elements Examined : All Bytes Examined : All Time: 15:04:27

BEGIN METAFILE string : "HiJaak 2" METAFILE DESCRIPTION : "HiJaak 2"

Picture 1 starts at octet offset 316; string contains: "Awesome!"

Conformance Summary : This file conforms to the CGM specification.

However, this file does not satisfy the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

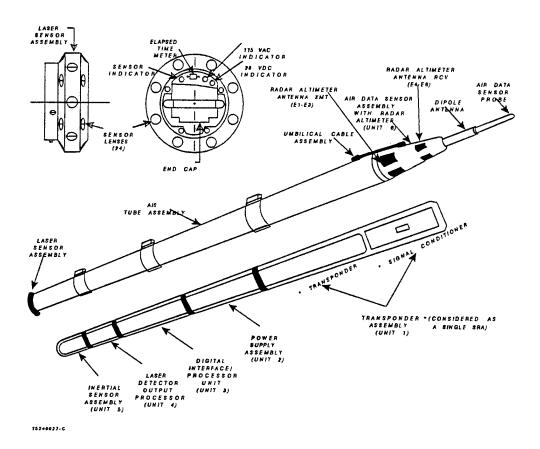
1 Pictures Tested 1302 Elements Tested 46148 Octets Tested

| 0 0 | Illegal CGM Elements Incorrect CGM Element Lengths CGM State Errors Required CGM Elements Missing or Wrong CGM Parameter Values Out of Range | 1000
2000
3000
4000
6000 | - | 3499
4499
6499 |
|-----|--|--------------------------------------|---|----------------------|
| U | CGM Structure Errors | 7000 | - | 7499 |
| 0 | *** CGM Errors Found (total) | *** | | |
| 0 | Profile State Errors | 3500 | - | 3999 |
| 0 | Illegal Profile Elements | 4500 | - | 4999 |
| 1 | Profile Parameter Values Out of Range | 6500 | - | 6999 |
| 0 | Profile Data Limits Exceeded | 8500 | - | 8999 |
| 0 | Other Profile Constraints Violated | 9500 | - | 9999 |
| 1 | *** Profile Violations Found (total) | *** | | |
| 1 | Warnings (Advisory Remarks) | 20000 | - | 20999 |

2 distinct errors and warnings were reported.

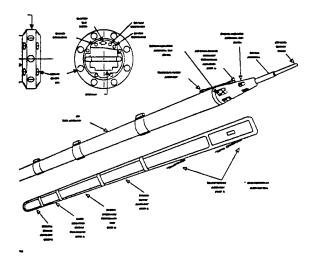
========= End of Conformance Report =============

11.1.2 Output Harvard Graphics

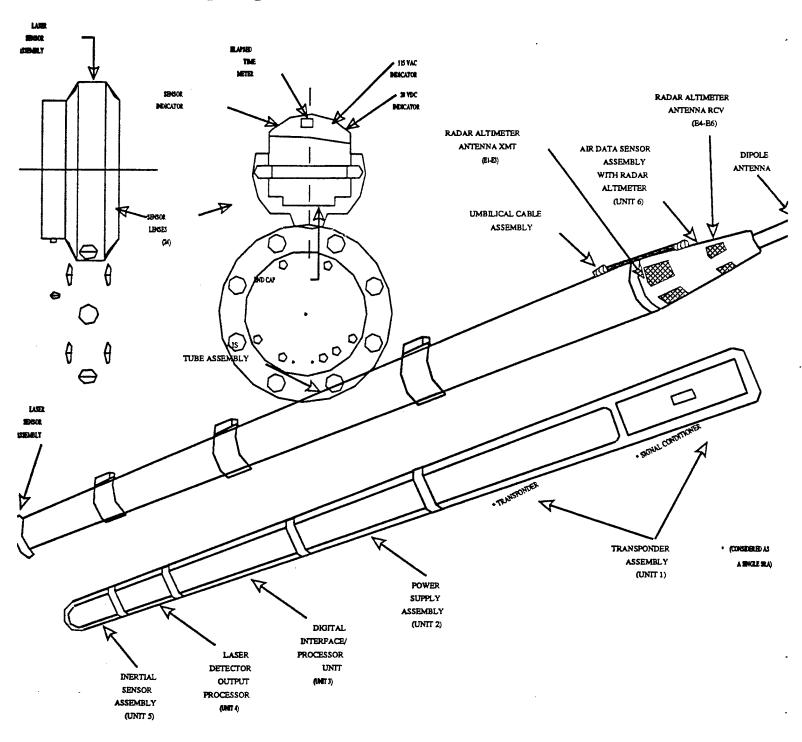


D001C001

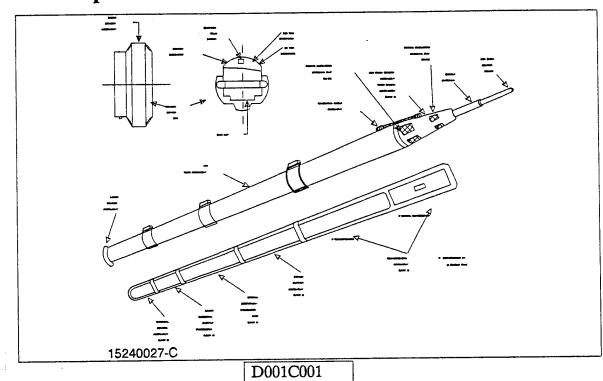
11.1.3 Output IslandDraw



11.1.4 Output cgm2draw/IslandDraw



11.1.5 Output Ventura Publisher



11.2 D001C002

11.2.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92 Time: 15:04:45

Metafile Examined : \9293\c002.cgm

Pictures Examined : All Elements Examined : All Bytes Examined : All

Tracing not selected.

======= CGM Conformance Violation Report =========

Bulletin 20027: Element Class/ID: 4/7 Offset: 644 octets Element No. 62 Warning; a foreground color has been defined and referenced by a primitive, while the background color has not been defined.

======= CALS CGM Profile (MIL-D-28003) Report =========

Error 6501: Element Class/ID: 1/2 Offset: 16 octets Element No. 3 The METAFILE DESCRIPTION string is invalid; it lacks the phrase "MIL-D-28003/BASIC-1" required by the Profile.

Error 8502: Element Class/ID: 4/1 Offset: 14034 octets Element No. 122 Invalid POLYLINE; the number of points may not exceed 1024.

========== Conformance Summary Report =============

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software

Execution Date: 12/22/92 Time: 15:04:52

Name of CGM under test: \9293\c002.cgm

Encoding : Binary

Pictures Examined : All Elements Examined : All Bytes Examined : All BEGIN METAFILE string : "HiJaak 2" METAFILE DESCRIPTION : "HiJaak 2"

Picture 1 starts at octet offset 316; string contains: "Awesome!"

Conformance Summary : This file conforms to the CGM specification.

However, this file does not satisfy the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

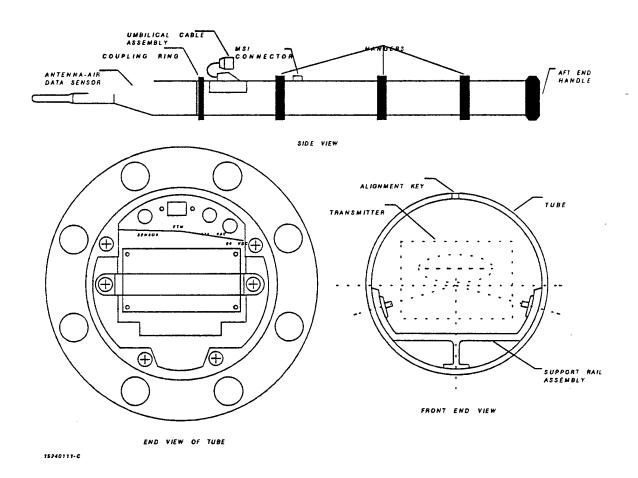
1 Pictures Tested 657 Elements Tested 40784 Octets Tested

| 0 | Illegal CGM Elements | 1000 | - | 1999 |
|---|--|-------|---|-------|
| 0 | Incorrect CGM Element Lengths | 2000 | - | 2999 |
| 0 | CGM State Errors | 3000 | - | 3499 |
| 0 | Required CGM Elements Missing or Wrong | 4000 | - | 4499 |
| 0 | CGM Parameter Values Out of Range | 6000 | - | 6499 |
| 0 | CGM Structure Errors | 7000 | - | 7499 |
| 0 | *** CGM Errors Found (total) | *** | | |
| | | | | |
| 0 | Profile State Errors | 3500 | - | 3999 |
| 0 | Illegal Profile Elements | 4500 | - | 4999 |
| 1 | Profile Parameter Values Out of Range | 6500 | - | 6999 |
| 1 | Profile Data Limits Exceeded | 8500 | - | 8999 |
| 0 | Other Profile Constraints Violated | 9500 | - | 9999 |
| 2 | *** Profile Violations Found (total) | *** | | |
| | | | | |
| 1 | Warnings (Advisory Remarks) | 20000 | - | 20999 |

3 distinct errors and warnings were reported.

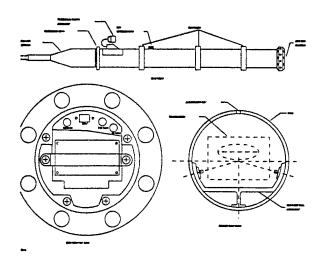
========= End of Conformance Report =============

11.2.2 Output Harvard Graphics

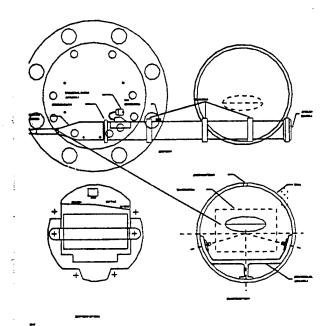


D

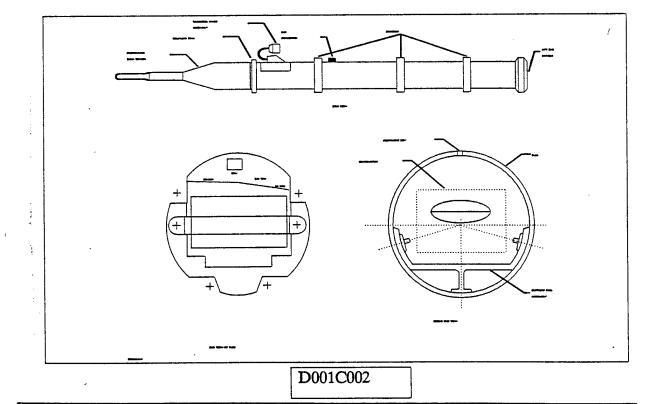
11.2.3 Output IslandDraw



11.2.4 Output cgm2draw/IslandDraw



11.2.5 Output Ventura Publisher



11.3 D001C003

11.3.1 Parser Log MetaCheck

METAFILE DESCRIPTION : "HiJaak 2"

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92 Time: 15:05:32 Metafile Examined : \9293\c003.cgm Pictures Examined : All Elements Examined : All Bytes Examined : All ----- Trace Report ------Tracing not selected. ======= CGM Conformance Violation Report ========== Bulletin 20027: Element Class/ID: 4/4 Offset: 476 octets Element No. 35 Warning; a foreground color has been defined and referenced by a primitive, while the background color has not been defined. ====== CALS CGM Profile (MIL-D-28003) Report ========= Error 6501: Element Class/ID: 1/2 Offset: 16 octets Element No. 3 The METAFILE DESCRIPTION string is invalid; it lacks the phrase "MIL-D-28003/BASIC-1" required by the Profile. ========== Conformance Summary Report ============ MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92 Time: 15:05:35 Name of CGM under test: \9293\c003.cgm Encoding : Binary Pictures Examined : All Elements Examined : All Bytes Examined : All BEGIN METAFILE string : "HiJaak 2"

Picture 1 starts at octet offset 316; string contains: "Awesome!"

Conformance Summary : This file conforms to the CGM specification.

However, this file does not satisfy the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

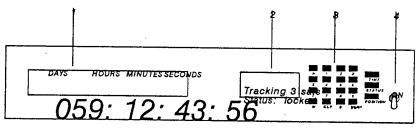
1 Pictures Tested 492 Elements Tested 4926 Octets Tested

| 0 | Illegal CGM Elements | 1000 | - | 1999 |
|---|--|-------|---|-------|
| 0 | Incorrect CGM Element Lengths | 2000 | - | 2999 |
| 0 | CGM State Errors | 3000 | - | 3499 |
| 0 | Required CGM Elements Missing or Wrong | 4000 | - | 4499 |
| 0 | CGM Parameter Values Out of Range | 6000 | - | 6499 |
| 0 | CGM Structure Errors | 7000 | - | 7499 |
| 0 | *** CGM Errors Found (total) | *** | | |
| | | | | |
| 0 | Profile State Errors | 3500 | - | 3999 |
| 0 | Illegal Profile Elements | 4500 | - | 4999 |
| 1 | Profile Parameter Values Out of Range | 6500 | - | 6999 |
| 0 | Profile Data Limits Exceeded | 8500 | - | 8999 |
| 0 | Other Profile Constraints Violated | 9500 | - | 9999 |
| 1 | *** Profile Violations Found (total) | *** | | |
| | | | | |
| 1 | Warnings (Advisory Remarks) | 20000 | - | 20999 |

2 distinct errors and warnings were reported.

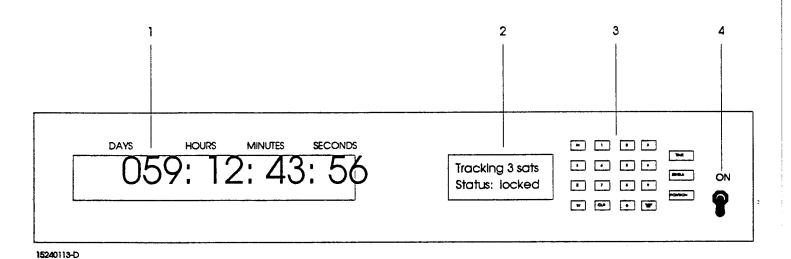
========= End of Conformance Report ===========

11.3.2 Output Harvard Graphics

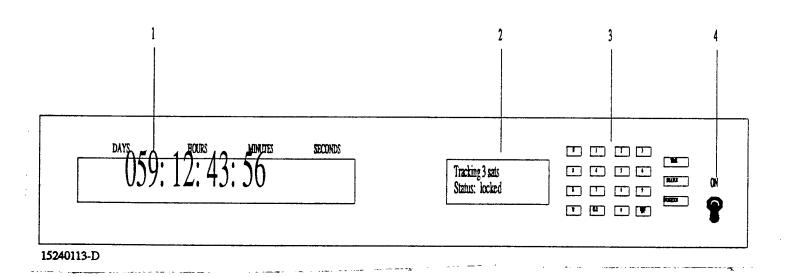


15240113-D

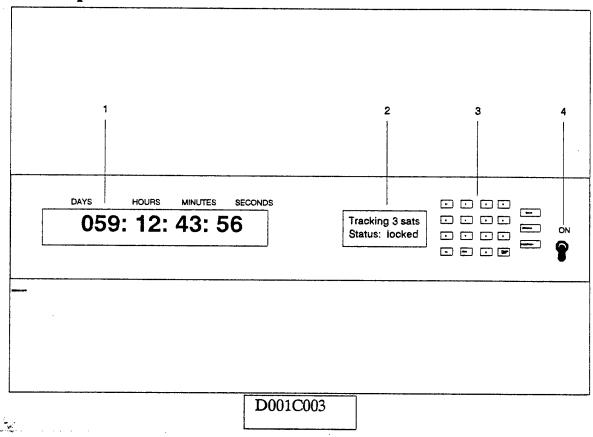
11.3.3 Output IslandDraw



11.3.4 Output cgm2draw/IslandDraw



11.3.5 Output Ventura Publisher



11.4 D001C004

11.4.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer Copyright 1988-91 CGM Technology Software

Execution Date: 12/22/92 Time: 15:05:48

Metafile Examined : \9293\c004.cgm

Pictures Examined : All Elements Examined : All Bytes Examined : All

Tracing not selected.

======= CGM Conformance Violation Report ==========

Bulletin 20027: Element Class/ID: 4/1 Offset: 640 octets Element No. 62 Warning; a foreground color has been defined and referenced by a primitive, while the background color has not been defined.

====== CALS CGM Profile (MIL-D-28003) Report =========

Error 6501: Element Class/ID: 1/2 Offset: 16 octets Element No. 3 The METAFILE DESCRIPTION string is invalid; it lacks the phrase "MIL-D-28003/BASIC-1" required by the Profile.

Error 8502: Element Class/ID: 4/1 Offset: 1110 octets Element No. 121 Invalid POLYLINE; the number of points may not exceed 1024.

========= Conformance Summary Report ============

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer

Copyright 1988-91 CGM Technology Software Execution Date: 12/22/92 Time: 15:05:56

Name of CGM under test: \9293\c004.cgm

Encoding : Binary

Pictures Examined : All Elements Examined : All Bytes Examined : All BEGIN METAFILE string : "HiJaak 2" METAFILE DESCRIPTION : "HiJaak 2"

Picture 1 starts at octet offset 316; string contains: "Awesome!"

Conformance Summary : This file conforms to the CGM specification.

However, this file does not satisfy the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

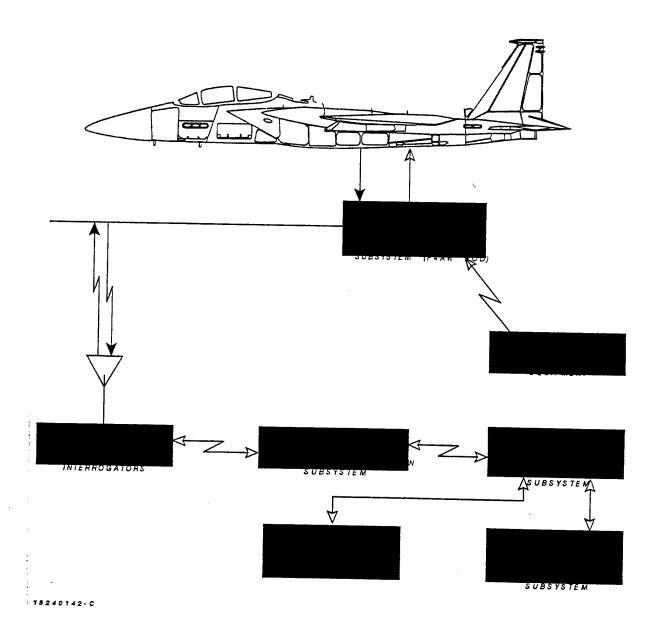
1 Pictures Tested 804 Elements Tested 47744 Octets Tested

| 0 | Illegal CGM Elements | 1000 | - | 1999 |
|---|--|-------|---|-------|
| | 5 | | | |
| U | Incorrect CGM Element Lengths | 2000 | - | 2999 |
| 0 | CGM State Errors | 3000 | - | 3499 |
| 0 | Required CGM Elements Missing or Wrong | 4000 | - | 4499 |
| 0 | CGM Parameter Values Out of Range | 6000 | - | 6499 |
| 0 | CGM Structure Errors | 7000 | - | 7499 |
| 0 | *** CGM Errors Found (total) | *** | | |
| | | | | |
| 0 | Profile State Errors | 3500 | - | 3999 |
| 0 | Illegal Profile Elements | 4500 | - | 4999 |
| 1 | Profile Parameter Values Out of Range | 6500 | - | 6999 |
| ı | Profile Data Limits Exceeded | 8500 | - | 8999 |
| 0 | Other Profile Constraints Violated | 9500 | - | 9999 |
| 2 | *** Profile Violations Found (total) | *** | | |
| | | | | |
| 1 | Warnings (Advisory Remarks) | 20000 | - | 20999 |

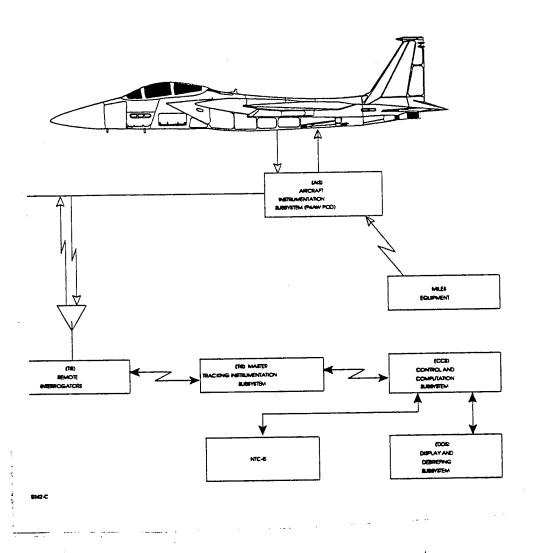
3 distinct errors and warnings were reported.

======== End of Conformance Report ===========

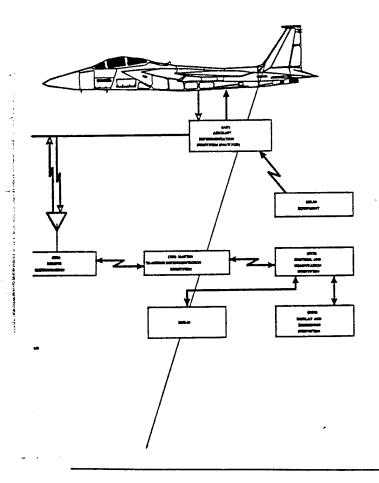
11.4.2 Output Harvard Graphics



11.4.3 Output IslandDraw



11.4.4 Output cgm2draw/IslandDraw



11.4.5 Output Ventura Publisher

